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EXAMINER	
SHOSHO, CALLIE E	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.	Applicant(s)
09/523,619	YOSHIMURA ET AL
Examiner	**Art Unit**
Callie E. Shosho	1714

Office Action Summary

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2002 and 26 November 2002*

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5,9,11,13,15-20 and 22-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,5,9,11,13,15-20 and 22-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4)☐ Interview Summary (PTO-413) Paper No(s). _____
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/15/02 has been entered.

2. All outstanding rejections except for those described below are overcome by applicants' amendment filed 10/15/02.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 3, 5, 9, 11, 22-24, and 28-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 7118592 in view of Yolles (U.S. 3,053,683) and EP 600625.

JP 7118592 discloses a water-based metallic gloss ink for ball point pens comprising 5-20 wt% pearl pigment which has diameter of 5-60 μm, water-soluble resin including polysaccharide such as xanthan gum, 5-40% water-soluble solvent, dye, and water. The ink has a viscosity of 10,000-150,000 cPs (paragraphs 7-12). From example 1, it is calculated that the ink comprises, for example, 1% water-soluble resin. Further, it is disclosed that the ball point pen comprises hollow ink container wherein the above ink is stored and there is also disclosed a method of using the above ink in this ball point pen (paragraph bridging pages 10-11)

The difference between JP 7118592 and the present claimed invention is the requirement in the claims of (a) glass flake and (b) amount of colorant.

With respect to difference (a), Yolles disclose a metal coated glass flake suitable for use in coating compositions for substrates such as paper, i.e. ink, in order to produce a glittery finish (col.1, lines 10-13 and 24-28, col.2, line 15, col.3, lines 54-59, and col.8, line 14) wherein the metal coated glass flakes have average diameter of 140-325 mesh, i.e. 4-100 μm (col.6, lines 47-49).

In light of the motivation of using glass flakes disclosed by Yolles as described above, it therefore would have been obvious to one of ordinary skill in the art to use glass flakes in JP 7118592 in order to produce an ink with a glittery finish, and thereby arrive at the claimed invention.

With respect to difference (b), it is noted that paragraph 12 of JP 7118952 discloses the use of colorant such as dye, however, there is no disclosure of how much dye is utilized.

On the one hand, it would have been within the skill level of, as well as obvious to, one of ordinary skill in the art to choose amounts of dye, including that presently claimed, in order to adjust the hue, color, and optical density of the ink to the desired level, and thereby arrive at the claimed invention.

On the other hand, EP 600205, which is drawn to ink for writing instrument similar to that disclosed by JP 7118952, discloses the use of 0.1-10% dye (page 3, lines 15-16).

In light of the motivation for using specific amount of colorant disclosed by EP 600205 as described above, it therefore would have been obvious to one of ordinary skill in the art to use colorant in such amount in the ink of JP 7118592 order to produce ink with desired color, hue, etc, and thereby arrive at the claimed invention.

6. Claims 15-20, 25-27, and 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 7118952 in view of Yolles and EP 600625 as applied to claims 1, 3, 5, 9, 11, 22-24, and 28-36 above, and further in view of Morita et al. (U.S. 6,099,629).

The difference between JP 7118592 in view of Yolles and EP 600625 and the present claimed invention is the requirement in the claims of resin emulsion binder.

Morita et al., which is drawn to ink for writing instrument, disclose the use of 1-10% (in terms of solid content) resin emulsion including anionic resin emulsion wherein the resin emulsion possesses minimum film forming temperature of less than 5 ^{0}C. The resins include styrene-acryl copolymer, polyvinyl acetate, and acryl resin. The motivation for using such resin emulsion is to control the stickiness and drying of the ink (col.5, lines 25-29, col.6, lines 34-50, and col.13, lines 47-51).

In light of the motivation for using resin emulsion disclosed by Morita et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such resin emulsion in the ink of JP 7118952 in order to control the stickiness and drying of the ink, and thereby arrive at the claimed invention.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 7118952 in view of Yolles and EP 600625 as applied to claims 1, 3, 5, 9, 11, 22-24, and 28-36 above, and further in view of Whyzmuzis (U.S. 5,714,526).

The difference between JP 7118952 in view of Yolles and EP 600625 and the present claimed invention is the requirement in the claims of opacifying pigment.

Whyzmuzis, which is drawn to ink composition, discloses the use of opacifying pigment (col.7, lines 4-10) in order to produce an ink with good optical density.

In light of above, it therefore would have been obvious to one of ordinary skill in the art to use such pigment in the ink of JP 7118952 in order to produce an ink with good optical density, and thereby arrive at the claimed invention.

8. Claims 43-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 7118952 in view of Yolles (U.S. 6,053,683), Morita et al. (U.S. 6,099,629), and EP 600625.

JP 7118592 discloses a water-based metallic gloss ink for ball point pens comprising 5-20 wt% pearl pigment which has diameter of 5-60 μm, water-soluble resin including polysaccharide such as xanthan gum, 5-40% water-soluble solvent, dye, and water. The ink has a viscosity of 10,000-150,000 cPs (paragraphs 7-12). From example 1, it is calculated that the ink comprises, for example, 1% water-soluble resin. Further, it is disclosed that the ball point pen comprises hollow ink container wherein the above ink is stored and there is also disclosed a method of using the above ink in this ball point pen (paragraph bridging pages 10-11)

The difference between JP 7118592 and the present claimed invention is the requirement in the claims of (a) glass flake, (b) amount dye, and (c) resin emulsion binder.

With respect to difference (a), Yolles disclose a metal coated glass flake suitable for use in coating compositions for substrates such as paper, i.e. ink, in order to produce a glittery finish (col.1, lines 10-13 and 24-28, col.2, line 15, col.3, lines 54-59, and col.8, line 14) wherein the

metal coated glass flakes have average diameter of 140-325 mesh, i.e. 4-100 μm (col.6, lines 47-49).

With respect to difference (b), it is noted that paragraph 12 of JP 7118952 discloses the use of colorant such as dye, however, there is no disclosure of how much dye is utilized.

On the one hand, it would have been within the skill level of, as well as obvious to, one of ordinary skill in the art to choose amounts of dye, including that presently claimed, in order to adjust the hue, color, and optical density of the ink to the desired level, and thereby arrive at the claimed invention.

On the other hand, EP 600205, which is drawn to ink for writing instrument similar to that disclosed by JP 7118952, discloses the use of 0.1-10% dye (page 3, lines 15-16).

With respect to difference (c), Morita et al., which is drawn to ink for writing instrument, disclose the use of 1-10% (in terms of solid content) resin emulsion including anionic resin emulsion wherein the resin emulsion possesses minimum film forming temperature of less than 5 °C. The resins include styrene-acryl copolymer, polyvinyl acetate, and acryl resins. The motivation for using such resin emulsion is to control the stickiness and drying of the ink (col.5, lines 25-29, col.6, lines 34-50, and col.13, lines 47-51).

In light of the motivation for using glass flakes, amount of colorant, and resin emulsion disclosed by Yolles, EP 600625, and Morita et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such glass flakes, amount of colorant, and resin emulsion in the ink of JP 7118592 in order to produce ink with glittery finish and suitable color and to control the stickiness and drying of the ink, and thereby arrive at the claimed invention.

9. Claims 50-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 7118592 in view of Yolles (U.S. 6,053,683) and Morita et al. (U.S. 6,099,629).

JP 7118592 discloses a water-based metallic gloss ink for ball point pens comprising 5-20 wt% pearl pigment which has diameter of 5-60 μm, water-soluble resin including polysaccharide such as xanthan gum, 5-40% water-soluble solvent, dye, and water. The ink has a viscosity of 10,000-150,000 cPs (paragraphs 7-12). From example 1, it is calculated that the ink comprises, for example, 1% water-soluble resin. Further, it is disclosed that the ball point pen comprises hollow ink container wherein the above ink is stored and there is also disclosed a method of using the above ink in this ball point pen (paragraph bridging pages 10-11)

The difference between JP 7118592 and the present claimed invention is the requirement in the claims of (a) glass flake and (b) resin emulsion binder.

With respect to difference (a), Yolles disclose a metal coated glass flake suitable for use in coating compositions for substrates such as paper, i.e. ink, in order to produce a glittery finish(col.1, lines 10-13 and 24-28, col.2, line 15, col.3, lines 54-59, and col.8, line 14) wherein the metal coated glass flakes have average diameter of 140-325 mesh, i.e. 4-100 μm (col.6, lines 47-49).

With respect to difference (b), Morita et al., which is drawn to ink for writing instrument, disclose the use of 1-10% (in terms of solid content) of resin emulsion including anionic resin emulsion wherein the resin emulsion possesses minimum film forming temperature of less than 5 °C. The resins include styrene-acryl copolymer, polyvinyl acetate, and acryl resins. The

motivation for using such resin emulsion is to control the stickiness and drying of the ink (col.5, lines 25-29, col.6, lines 34-50, and col.13, lines 47-51).

In light of the motivation for using glass flakes and resin emulsion disclosed by Yolles and Morita et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such glass flakes and resin emulsion in the ink of JP 7118592 in order to produce ink with glittery finish and to control the stickiness and drying of the ink, and thereby arrive at the claimed invention.

Response to Arguments

10. Applicants' arguments with respect to Allison et al. (U.S. 6,160,034) and Kubota et al. (U.S. 6,039,796) have been considered but they are moot in view of the discontinuation of these references against the present claims.

11. Applicants' arguments and declarations filed 10/15/02 and 11/26/02 have been fully considered but, with the exception of arguments relating to Allison et al. and Kubota et al., they are not persuasive.

Specifically, applicants argue that:

(a) the declaration filed 11/27/02 relating to commercial success of the claimed invention establishes non-obviousness over the cited prior art.

(b) The declaration filed 11/27/02 relating to Yolles establishes the non-obviousness of the present invention over this reference used either alone or in combination with other references.

(c) JP 7115892 relates to a mixture of pearlescent pigment and colorant and does not relate to the present invention in which a written mark is provided with a spatial effect with star dust like glittering feeling with a glitter of glass flakes coated with metal due to metal reflection that separately occurs from the realization of the color of a colorant.

(d) Yolles discloses a coating layer rather than a written mark and further, the modes of application of a coating in Yolles are not analogous to those of the making of a written mark, particularly by a ball-point pen.

(e) No disclosure in JP 7118592 or Yolles of the amount of glass flakes used in ink for writing instrument.

(f) There is no disclosure in JP 7118592 or Yolles of the amount of colorant utilized.

(g) It is well known in the art that glass flakes present great technical difficulty in successful use in an ink for writing.

With respect to argument (a), while the examiner has considered the declaration, it is the examiner's position that the declaration is not successful in establishing non-obviousness over the cited prior art for the following reasons.

While the declaration discloses the number of pens sold which comprise the presently claimed ink, the sales volume corresponding to the number of pens sold, and the market share captured by the pens, there is no disclosure in the declaration that the claimed features were responsible for the commercial success of the claimed ink pen as required in MPEP 716.03(b). This portion of the MPEP states that "merely showing that there was commercial success of an article which embodied the invention is no sufficient." It is the examiner's position that the

present declaration does not provide evidence of the nexus between the sales and the claimed invention. Evidence to support examiner's position is found in *In re Haung*, 100 F.3d 135, 140, 40 USPQ2d 1685, 1690 (Fed. Cir. 1996) where the courts held that assuming that there is a sufficient demonstration of commercial success, that success is relevant in the obviousness context only if there is proof that the sales were a direct result of the unique characteristics of the claimed invention as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter. In other words, a nexus is required between the sales and the merits of the claimed invention

The present declaration does not contain such proof as set forth above and thus, is not successful in establishing non-obviousness over the cited prior art.

With respect to argument (b), it is noted that in the declaration, applicants argue that at the time of the filing of JP 11-076868 on 3/19/99 (JP 11-076868 is the foreign priority document of the present invention), one of ordinary skill in the art would not have considered the present claims obvious in view of the disclosure of Yolles, either alone or in combination, given that when one of ordinary skill considered the problem of how to make a written mark that glitters, one would have in mind the technological specifications of how a writing instrument makes a written mark with an ink and that a person skilled in the art would not look to glass flakes as possible glittering material because that person would have known that glass flakes were flat and had sharp edges and that these characteristics would teach against using glass flake pigments as glittering material in writing instruments.

While it is agreed that there is no disclosure in Yolles of using the coated glass flakes in a writing instrument, it is the examiner's position that one skilled in the art would look to glass flakes of Yolles as glittering material for the writing instrument of JP 7118592 for the following reasons.

Firstly, col.8, lines 12-13 and 24-25 of Yolles state that the glass flakes are suitable for use in coating composition for paper and that the glass flakes are used in other products employing pearl essence pigments. This is significant given that JP 7118592, with which Yolles is combined, is an ink which uses pearlescent pigments. Secondly, in the declaration, applicants state that one of skill in the art would not look to glass flakes because glass flakes are flat with sharp edges which would teach against using such glass flakes in writing instruments. However, it is noted that Yolles discloses metal coated glass flakes which have average diameter of 140-325 mesh or 4-100 μm which is identical to the average size presently claimed. Thus, one of ordinary skill in the art would have recognized that the glass flakes, even if flat and possessing sharp edges, would not clog or wear the writing tool. Further, it is noted that col.1, lines 33-35 of Yolles describe the pigment as smooth rather than possessing sharp edges.

For the above reasons, it is the examiner's position that it would in fact have been obvious to one of ordinary skill in the art to combine JP 7118592's writing instrument ball point pen ink with the glass flakes of Yolles.

With respect to argument (c), it is agreed that JP 7115892 does not disclose ink with glittering feeling as presently claimed which is why JP 7115892 is used in combination with

Yolles which discloses the use of metal coated glass flakes which are used to make glittery finishes.

With respect to argument (d), it is noted that according to MPEP 2141.01 (a), a reference may be relied on as a basis for rejection of an applicants' invention if it is "reasonably pertinent to the particular problem with which the inventor is concerned." A reasonably pertinent reference is further described as one which "even though it maybe in a different field of endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." Yolles is, therefore, a reasonably pertinent reference, because it teaches that metal coated glass flakes are used in products which typically use pearl essence pigments (such as the ink disclosed by JP 7115892) and that such glass flakes impart glittery feeling (as required in the present claims).

Further, it is significant to that Yolles discloses that the glass flakes are suitable for use in "other products" employing pearl essence pigments. There is no limitation on what these other products encompass. Further, Yolles discloses that the glass flakes are suitable for use in coatings for paper and the examiner's position remains that inks are a type of coating for paper.

With respect to argument (e), it is noted that given that Yolles discloses that the metal coated glass flakes are used in products now employing pearl essence pigments, it would have been natural for one of ordinary skill in the art to infer that the metal coated glass flakes would be used in the same amount in the product as the pearl essence pigments had been used.

With respect to argument (f), while it is agreed that there is no disclosure in JP 7115892 of the amount of colorant utilized, on the one hand, it would have been within the skill level of, as well as obvious to, one of ordinary skill in the art to choose amounts of dye, including that presently claimed, in order to adjust the hue, color, and optical density of the ink to the desired level, and thereby arrive at the claimed invention.

On the other hand, JP 7115892 is now used in combination with EP 600205, which is drawn to ink for writing instrument similar to that disclosed by JP 7118952, and discloses the use of 0.1-10% dye (page 3, lines 15-16).

With respect to argument (g), while it may be well known that glass flakes provide unsatisfactory inks due to blurs or unsmoothness appearing in the written letters and further results in clogging of the pen in the course of writing, this would not prevent one of skill in the art from using glass flakes in inks for writing instrument especially those which are of the same size as those presently claimed and are known to be used in place of pearl essence pigments which are conventionally used in inks for writing instruments as disclosed by Yolles. That is, given the motivation for using the metal coated glass flakes disclosed by Yolles and further given that the glass flakes possess size identical to that presently claimed so that the glass flake would not clog the writing instrument, it is the examiner's position that it therefore would have been obvious to one of ordinary skill in the art to use the glass flakes of Yolles in the ink of JP 07110592.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Callie E. Shosho
Examiner
Art Unit 1714

CS
2/22/03